

### **Summary**

#### **Use of Inhibitors for the Treatment of RTK-Hyperfunction-induced Disorders, Particularly Cancer**

The present invention concerns the use of inhibitors for the treatment and/or prophylaxis of diseases which are the consequence of increased receptor tyrosine kinase activity, particularly cancer. The use is particularly directed towards inhibition or lowering of the overexpression and/or altered activity of receptor tyrosine kinases (RTKs). In particular, this altered activity of receptor tyrosine kinase can be triggered by a mutation of FGFR-4, wherein this mutation is in particular a point mutation in the transmembrane domain of FGFR-4 and leads to an exchange of a hydrophobic amino acid for a hydrophilic amino acid. The invention further concerns the use of an inhibitor directed against FGFR-4, for the treatment and/or prophylaxis of cancer. Furthermore, the invention concerns a mutated FGFR-4, which leads to over-expression and/or altered activity in cells. Finally, the invention concerns a DNA and RNA sequence of a mutated FGFR-4 molecule. Finally, in addition the invention concerns a pharmaceutical composition, containing the inhibitor as described above and further a diagnostic and screening procedure.